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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 09/994,260 | 11/26/2001 | Eladio C. Arvelo | 51010.P018 | 8630 |
| 23419 | 7590 | 02/24/2005 | EXAMINER | |
| COOLEY GODWARD, LLP 3000 EL CAMINO REAL 5 PALO ALTO SQUARE PALO ALTO, CA 94306 | | | DAVIS, CYNTHIA L | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2665 | |

DATE MAILED: 02/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/994,260

Applicant(s)

ARVELO, ELADIO C.

Examiner

Cynthia L Davis

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11/21/2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 and 23-25 is/are rejected.
- 7) ☒ Claim(s) 22 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see 35 USC §112, filed November 8, 2004, with respect to claim 22, have been fully considered and are persuasive. The rejection of claim 22 has been withdrawn.

2. Applicant's arguments regarding claims 1, 16, and 25, filed on November 8, 2004 have been fully considered but they are not persuasive.

The proposed amendments to claims 1, 16, and 25, add the language, "using open loop or closed loop power control to...". Because this limitation is in the alternative, it does not address the rejection. This language reads on any system that uses either closed loop power control alone, open loop power control alone, or both. The system of Chang uses both open loop and close loop power control. Also, claims 1, 16, and 25, do not define open loop or closed loop power control, and hence would read on any system purporting to use any method of open or closed loop power control. Arguments differentiating the power control method of Chang from the power control method of the instant application are moot, as limitations from the specification of the instant application cannot be read into the claims. The rejections based on Chang (which uses forms of both open and closed loop power control) still apply.

Claims 1 and 16 are rejected under 35 U.S.C. 102(a) as being anticipated by Chang (6754506).

Regarding claim 1, Chang discloses a method comprising increasing a power level of a wireless transmission (figure 3, element 308a) if a number of

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frame errors in a short observation window (reporting period, column 4, lines 13-16) exceeds a first threshold (column 4, lines 32-37, also, "target," figure 3, element 306). Chang also discloses decreasing the power level of the wireless transmission (figure 3, element 308b) if a number of frame errors in a long observation window (reporting period, column 4, lines 13-16) falls below a second threshold (column 4, lines 37-39, also "target," figure 3, element 306).

Regarding claim 16, see the above rejection for claim 1. Chang further discloses a counter to count frame errors in a wireless transmission at column 4, line 21 ("number of errors detected," a counter is necessarily implied). Counting a number of frame errors in a short observation window is disclosed in column 4, lines 13-16 ("reporting period"). Counting a number of frame errors in a long observation window is disclosed in column 4, lines 13-16 ("reporting period"). A comparator to compare the number of frame errors in the short observation window to a first threshold and to compare the number of packet errors in the long observation window to the second threshold is disclosed in figure 3, element 306, and column 4, lines 32-35. A controller to increase a power level of the wireless transmission if the number of packets in the short observation window exceeds the first threshold is disclosed in figure 3, element 308a. A controller to decrease the power level of a wireless transmission if the number of packet errors in the long observation window falls below the second threshold is disclosed in figure 3, element 308b.

Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chang in view of Uhlik (6760599). Chang discloses a method comprising

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increasing a power level of a wireless transmission (figure 3, element 308a) if a number of packet errors in a short observation window (column 4, lines 13-16) exceeds a first threshold (column 4, lines 32-37). Chang also discloses decreasing the power level of the wireless transmission (figure 3, element 308b) if a number of errors in a long observation window (column 4, lines 13-16) falls below a second threshold (column 4, lines 37-39). Claim 25 further discloses a machine readable medium having stored thereon machine readable instructions to implement this method, which is missing from Chang. However, using such a machine readable medium and machine readable instructions to carry out a similar method is disclosed in Uhlik at column 19, lines 12-27. It would have been obvious to one skilled in the art at the time of the invention to store instructions for this method on a machine readable medium. The motivation would be to have a computer carry out the steps of the claimed method.

3. Applicant's arguments regarding claims 5-8 filed on November 8, 2004 have been fully considered but they are not persuasive. The proposed amendments to claims 5-8 do not change the limitations of the claims, and the rejection to claim 1 still stands, so the rejections under 35 USC §103(a) still apply.

Claims 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang in view of Van Heeswyk (6765883), in further view of Honkanen (6765883).

Regarding claim 5, the method of claim 1 is disclosed in Chang. Claim 5 further limits the method of claim 1 by specifying that it is open loop, and uses

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CRC's and NACK's to count the packet errors, which is missing from Chang. However, increasing and/or decreasing the power level comprising an open loop power control method is disclosed in Van Heeswyk at column 9, lines 33-39. Receiving a plurality of packets comprising the wireless transmission from a remote source and performing a CRC on each of the plurality of packets is disclosed as part of the Bluetooth standard in the specification on page 9, lines 15-16. Sending a NACK message to the remote source for each CRC failure is disclosed as part of the Bluetooth standard in the specification on page 9, line 16 thru page 10, line 1. The remote source counting the NACK messages corresponding to the number of packet errors in the short observation window and a number of packet errors in the long observation window is disclosed in Chang in column 4, lines 19-20. The remote source increasing and/or decreasing the power level accordingly is disclosed in Van Heeswyk at column 9, lines 38-39. Monitoring error rates in a Bluetooth wireless system is disclosed in Honkanen at column 1, lines 8-12, and column 6, lines 39-43. In view of this disclosure, it would have been obvious to one skilled in the art at the time of the invention to use the claimed method of open loop power control based on error rates in a Bluetooth-type system. The motivation would be to allow the remote source to unilaterally control its power level, and to have the system operating on the standardized, recognized Bluetooth protocol.

Regarding claim 6, the method of claim 1 is disclosed in Chang. Claim 6 further discloses open loop power control, and using CRC's and NACK's to count the packet errors, which is missing from Chang. However, increasing and/or

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decreasing the power level comprising an open loop power control method is disclosed in Van Heeswyk at column 9, lines 33-39. Sending a plurality of packets comprising the wireless transmission to a remote source and performing a CRC on each of the plurality of packets is disclosed as part of the Bluetooth standard in the specification on page 9, lines 15-16. Receiving a NACK message to the remote source for each CRC failure is disclosed as part of the Bluetooth standard in the specification on page 9, line 16 thru page 10, line 1. Chang discloses counting the NACK messages corresponding to the number of packet errors in the short observation window (column 4, lines 13-16) and increasing the power level accordingly (figure 3, element 308a). Chang also discloses counting the NACK messages corresponding to the number of packet errors in the long observation window (column 4, lines 13-16) and decreasing the power level accordingly (figure 3, element 308b). Monitoring error rates in a Bluetooth wireless system is disclosed in Honkanen at column 1, lines 8-12, and column 6, lines 39-43. In view of this disclosure, it would have been obvious to one skilled in the art at the time of the invention to use the claimed method of open loop power control using error rates in a Bluetooth-type system. The motivation would be to allow the transmitter to control its transmission power and to have the system operate in the standardized, recognized Bluetooth protocol.

Regarding claim 7, the method of claim 1 is disclosed in Chang. Claim 7 further discloses closed loop power control, and using CRC's and NACK's to count the packet errors, which is missing from Chang. However, increasing and/or decreasing the power level comprising a closed loop power control

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method is disclosed in Van Heeswyk at column 9, lines 40-52. Receiving a plurality of packets comprising the wireless transmission from a remote source and performing a CRC on each of the plurality of packets is disclosed as part of the Bluetooth standard in the specification on page 9, lines 15-16. Counting the CRC failures in the short observation window (column 4, lines 13-16) and a long observation window (column 4, lines 13-16) is disclosed in Chang. Sending an instruction to the remote source to increase or decrease the power levels accordingly is disclosed in Van Heeswyk at column 9, lines 43-47. Monitoring error rates in a Bluetooth wireless system is disclosed in Honkanen at column 1, lines 8-12, and column 6, lines 39-43. In view of this disclosure, it would have been obvious to one skilled in the art at the time of the invention to use the claimed method of closed loop power control using error rates in a Bluetooth-type system. The motivation would be to allow the transmitter to control the transmission power of the remote sources, and to have the method use the standardized, recognized Bluetooth protocol.

Claim 8 further limit the method of claim 7 by sending the instruction to the remote source to increase the power level if the number of CRC failures in the long observation window exceeds a third threshold. Chang discloses increasing the power level of the wireless transmission (figure 3, element 308a) if the number of packet errors in the long observation window (column 4, lines 13-16) exceeds a third threshold (column 4, lines 32-37). In view of this disclosure, it would have been obvious to one skilled in the art to use a third threshold. The motivation would be to fine-tune the power control of the system.

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4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Allowable Subject Matter

5. Claim 22 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cynthia L Davis whose telephone number is (571) 272-3117. The examiner can normally be reached on 8:30 to 6, Monday to Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (571) 272-3155. The fax

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phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CLD
1/18/2005

CLD
2/22/05



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